

HP ProCurve 6120XG Blade Switch Installation Instructions

for HP c-Class BladeSystem

Overview

This card provides instructions for installing an HP ProCurve 6120XG Blade Switch for c-Class BladeSystem in an HP c-Class BladeSystem enclosure.

Kit contents

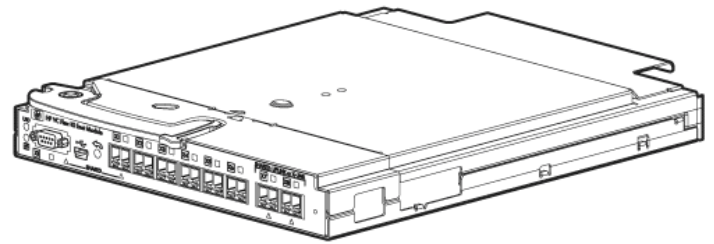
- HP ProCurve 6120XG Blade Switch
- Console cable (USB A to USB mini-AB)
- Customer Support/Warranty booklet
- License documentation
- This document



IMPORTANT: Only use HP-approved pluggable SFP+ or SFP optical transceiver modules or SFP+ direct attach cables. For more information, see the QuickSpecs on the HP website (<http://www.hp.com/go/bladesystem/interconnects>).



HP ProCurve 6120XG Blade Switch



Additional information

For more information on the association between the server blade mezzanine connectors and the interconnect bays, see the HP BladeSystem enclosure setup and installation guide that ships with the enclosure. During server blade installation, the location of the mezzanine card determines the installation location of the switch modules.

For specific switch port connection information for each blade, see the HP BladeSystem enclosure setup and installation guide that ships with the enclosure. Connections differ by blade type.

Installation guidelines

Observe the following guidelines:

- All HP ProCurve switches in the enclosure require valid and unique IP addresses before they can be accessed via Ethernet. By default DHCP is enabled on these switches, so the switch management interface can get IP credentials from the DHCP server on the attached Ethernet network. If EBIPA is enabled on the Onboard Administrator (OA) of the enclosure, OA will assign an IP address to the switch from its configured IP address range, so that switch can be accessed from the OA Ethernet interface. If EBIPA is disabled but DHCP service is available on the network attached to the OA Ethernet interface, then the switch gets its IP address assigned from the attached network. Any IP host on that network can access the switch at this point. If the DHCP service is not available on the attached network, the user can assign valid IP credentials from the

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switch CLI, accessing it via serial interface attached to OA and/or USB interface attached to the blade.

- When using optional transceiver modules or direct attach cables, order the modules and cables separately. For more information, see the QuickSpecs on the HP website (<http://www.hp.com/go/bladepystem/interconnects>).
- For more information on BladeSystem port mapping, see the HP BladeSystem enclosure setup and installation guide that shipped with the enclosure.
- For the most current product information, see the release notes at <http://www.hp.com/go/bladepystem/documentation>.

Firmware requirements

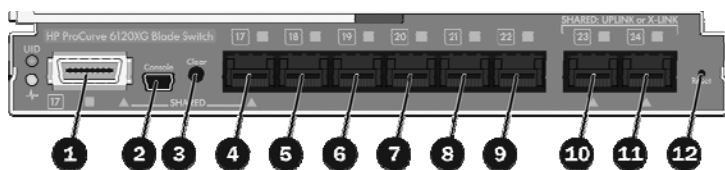
Always install the most current firmware or software for the following items:

- Server blade system ROMs
- Ethernet mezzanines
- HP BladeSystem Onboard Administrator
- HP ProCurve blade switch

For additional information on required firmware or software versions and to download firmware or software updates, see the HP website:

1. Go to <http://www.hp.com/#Support>.
2. Click the "Download drivers and software" radio button.
3. Enter "6120XG" in the text box and click "Go".
4. Click the link for your operating system.
5. Download the appropriate software or firmware.

Front Panel



Item	Description
1	Port 17 (10GBASE-CX4) *
2	Console port (USB 2.0 mini-AB connector)
3	Clear button
4	Port 17 SFP+ (10-GbE) slot * †
5	Port 18 SFP+ (10-GbE) slot †
6	Port 19 SFP+ (10-GbE) slot †
7	Port 20 SFP+ (10-GbE) slot †
8	Port 21 SFP+ (10-GbE) slot †
9	Port 22 SFP+ (10-GbE) slot †
10	Port 23 SFP+ (10-GbE) slot * †
11	Port 24 SFP+ (10-GbE) slot * †
12	Reset button (recessed)

* Dual-personality port. See explanation below.

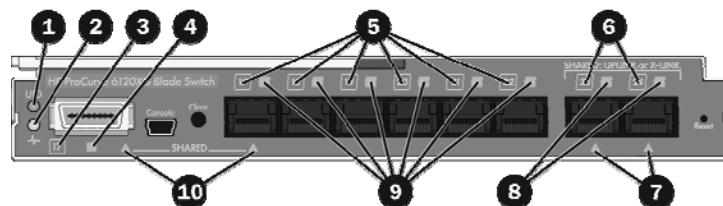
† Supports 10GBASE-SR SFP+, 10GBASE-LR SFP+, 10GBASE-LRM SFP+, 1000BASE-T SFP, 1000BASE-SX SFP, and 1000BASE-LX SFP pluggable optical transceiver modules.

Dual-personality ports

Port 17 consists of a CX4 port multiplexed with an SFP+ port. Only one may be active. The SFP+ port takes precedence: if it contains a module, it is the active port and the CX4 port is inactive.

Ports 23 and 24 are each multiplexed with inter-switch link ports on the blade switch's backplane. Either the SFP+ port on the front panel or the backplane port can be active, but both can not be active at the same time. The SFP+ port on the frontplane takes precedence: if it contains a module, it is the active port and its corresponding backplane port is inactive. Refer to the *Installation and Getting Started Guide* for more information.

LEDs



Item	LED description	Status
1	Module locator (UID)	Blue = Module ID selected Off = Module ID not selected
2	Module status (health)	Green = Normal operation Amber = Fault Off = Power off
3	Port 17 status (10GBASE-CX4)	Green = Port is connected to the network. Amber = Fault Off = Not connected
4	Port 17 activity (10GBASE-CX4)	Green flashing = Activity
5	Port 17–22 status (SFP+ connector)	Green = Port is connected to the network. Amber = Fault Off = Not connected
6	Port 23–24 status	Green = Port is connected to the network. Amber = Fault Off = Not connected
7	Port 23–24 multiplexed port status	Green = Frontplane port is active. Internal (backplane) link is inactive. Off = Frontplane port is inactive. Internal (backplane) link may be active.
8	Port 23–24 activity	Green flashing = Activity
9	Port 17–22 activity	Green flashing = Activity
10	Port 17 multiplexed port status	Either the CX4 port or the SFP+ port may be active, but not both. Green = Port is active. Off = Port is inactive.

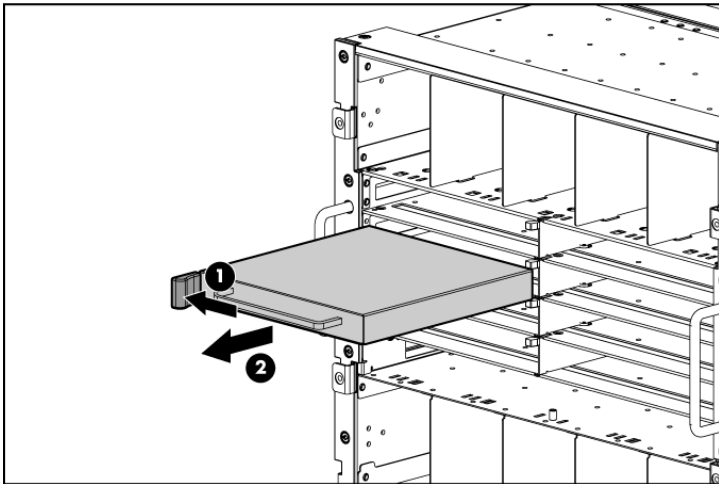
Installing the HP ProCurve 6120XG Blade Switch

If there is only one blade switch in the chassis, it must occupy a slot on the left-hand side of the chassis (as you face the back of the chassis). If there is more than one blade switch in the chassis, the configuration rules can be somewhat complex; refer to the *Installation and Getting Started Guide* for the blade switch for more detail.

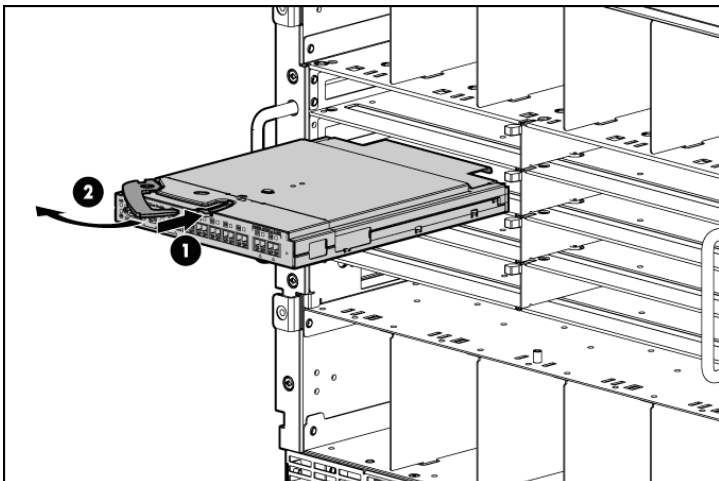
Follow these steps to install a blade switch module in your chassis:

NOTE: The HP ProCurve 6120XG Blade Switch module can be used in an HP BladeSystem c7000 Enclosure or an HP BladeSystem c3000 Enclosure. The illustrations in this document show the blade switch being installed in a c7000 enclosure.

1. Remove the interconnect blank.

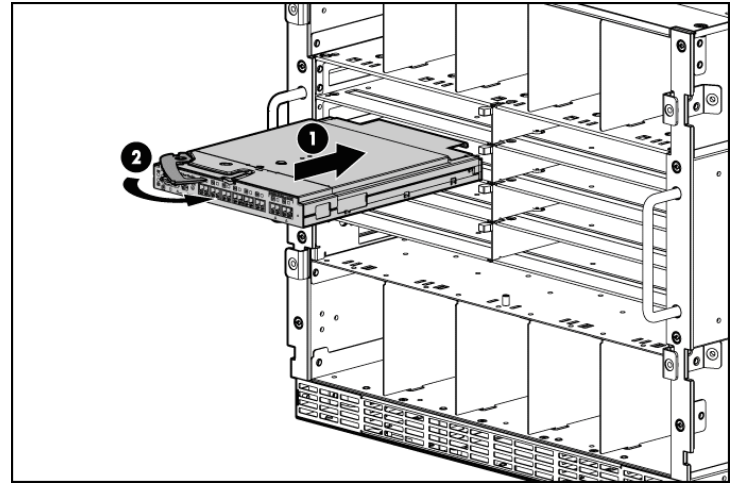


2. Prepare the HP ProCurve 6120XG Blade Switch for installation.



3. Install the blade switch into the interconnect bay.

A green Module Status (“health”) LED indicates a successful installation. If the Module Status LED is amber or is off, see the “Troubleshooting” section of the HP BladeSystem enclosure setup and installation guide for more information.



4. Connect network cables to the blade switch as desired.

Accessing the blade switch from the HP BladeSystem Onboard Administrator

These instructions assume that you have already set up the HP BladeSystem Onboard Administrator (OA) using the First Time Setup Wizard. See the *HP BladeSystem Onboard Administrator User Guide* for details on OA setup. For information on OA command line interface (CLI) commands, see the *HP BladeSystem Onboard Administrator Command Line Interface User Guide*. Both guides are available at <http://www.hp.com/go/bladesystem/documentation>.

1. Connect a workstation or laptop computer to the serial port on the c3000/c7000 OA module using a null-modem serial cable (RS-232).
2. Using a terminal program (such as HyperTerminal or TeraTerm), open a connection to the serial port using connection parameters of 9600, 8, N, 1.
3. Press Enter. OA prompts you for login information.
4. Enter a valid username and password. The OA system prompt appears.
5. Enter the command:

```
connect interconnect <bay_number>
```

where `<bay_number>` is the number of the bay containing the blade switch. OA connects you to the initial screen of the blade switch CLI.
6. Press Enter. The blade switch CLI prompt appears. You are now ready to enter blade switch CLI commands.

See the paragraphs below for instructions for assigning an IP address to the blade switch. Refer to the *Management and Configuration Guide for HP ProCurve 6120 Blade Switches* for more

detailed information on configuring the blade switch. The complete manual set for the blade switch software is available at <http://www.hp.com/go/ bladesystem/documentation>.

Accessing the blade switch via the mini USB interface (out of band)

The blade switch console supports out-of-band access via direct connection to the mini USB console port from a Windows computer. To communicate with the blade switch:

1. Download the USB driver onto the PC. To find the driver:
 - a. Go to <http://www.hp.com/#Support>.
 - b. Click the "Download drivers and software" radio button.
 - c. Enter "6120XG" in the text box and click "Go".
 - d. Click the link for your operating system.
 - e. Download the Utilities package.
2. Install the driver by double-clicking the HPProCurve_USBConsole.msi file.
3. Connect the small end of the supplied USB console cable to the mini USB port.
4. Connect the standard end of the supplied USB console cable to a workstation or laptop computer. The computer will recognize the presence of a new USB device and load the driver for it.
5. Using a terminal program (such as HyperTerminal or TeraTerm), open a connection to the USB port. (By default this port will appear as COM4.)
6. Press Enter twice. The blade switch CLI prompt appears. You are now ready to enter blade switch commands.

See the paragraphs below for instructions for assigning an IP address to the blade switch. Refer to the *Management and Configuration Guide for HP ProCurve 6120 Blade Switches* for more detailed information on using CLI commands to set up the blade switch. The complete manual set for the blade switch software is available at <http://www.hp.com/go/ bladesystem/documentation>.

Accessing the blade switch from the Ethernet interface (in band)

The blade switch console supports in-band access via the data ports using Telnet from a PC or UNIX computer on the network, and a VT-100 terminal emulator. This method requires the blade switch to have an IP address, subnet mask, and default gateway. The IP address, subnet mask, and default gateway can be supplied by a DHCP or Bootp server, or you can manually configure them using the command line interface (CLI). By default the blade switch gets its IP address via DHCP/Bootp; see the next section for instructions on manually configuring a static IP address.

To communicate with a blade switch that has an IP address, subnet mask, and default gateway:

1. Verify network connectivity between the blade switch and your workstation or laptop computer using a "ping" command.
2. Using a terminal program (such as HyperTerminal or TeraTerm), open a connection using the blade switch's IP address, Telnet protocol, and port 23.
3. Press Enter twice. The blade switch CLI prompt appears. You are now ready to issue blade switch commands.

For complete information on the blade switch CLI commands see the blade switch software manuals, which are available at <http://www.hp.com/go/ bladesystem/documentation>.

The blade switch can simultaneously support one out-of-band console session through the console port and one in-band Telnet console session.

Assigning an IP address to the blade switch

By default the blade switch tries to acquire an IP address from a DHCP or Bootp server. You can configure an IP address for the blade switch using the command line interface (CLI), via the Onboard Administrator or the blade switch's mini USB port.

To set a static IP address manually:

1. From the operator's CLI prompt (>) on the blade switch enter:

```
enable
```

and supply a username and password if requested.
2. From the manager's CLI prompt (#) on the blade switch enter:

```
config
```
3. Specify the VLAN of the port that attaches to the network. (By default all ports are in VLAN 1.)

```
vlan <vlan_id>
```
4. Enter an IP address and subnet mask for the switch. (Both the IP address and subnet mask are in x.x.x.x format.)

```
ip address <ip_address> <subnet_mask>
```
5. Enter a default gateway ip address (in x.x.x.x format).

```
ip default-gateway <ip_address>
```
6. You can return to the operator or manager prompt using a series of `exit` commands.

Technical Support

For technical support, go to www.hp.com/support.